

Application No. 10/643,043
Docket No. DP-308286
Amendment dated March 9, 2005
Reply to Office Action of December 9, 2004

Amendments to the Specification:

Please replace the title of the invention at page 1 with the following amended title:

ELECTRONIC ASSEMBLY WITH SOLDER-BONDED HEAT SINK

Please replace paragraph [0003] with the following amended paragraph:

[0003] To further reduce induced stresses and to eliminate the need for thermally-conductive lubricants, co-pending U.S. Patent No. 6,700,195 ~~Application Serial No. {Attorney Docket No. DP-308094}~~ to Mandel discloses mounting a power flip chip (or other circuit device) within a first region of a substrate. The first region is peripherally supported by a second region of the substrate surrounding the first region, which in turn is supported by a third region of the substrate surrounding the second region. The second region is fabricated to be more flexible than the first and third regions. The device is contacted by a heat-conductive member, and a biasing member contacts the first region of the substrate to bias the device

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into thermal contact with the heat-conductive member. An important advantage of the assembly disclosed by Mandel is that the more flexible second region of the substrate improves the mechanical decoupling of strains that arise as a result of different thermal expansions and movement between the device, substrate, and heat-conductive member, thereby reducing the induced stresses that can cause fracturing of the device and its solder connections.